

Ohio Projects to Reduce Diesel Emissions in Ports

Midwest Clean Diesel Initiative Steering Committee

April 25, 2019

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Administrator,

Ohio EPA Diesel Emission Reduction Grants



Ohio River Tug/Towboats

- Seven tow boat repowers in Ohio River ports in Belmont, Lawrence and Scioto counties
- \$2.2 million in CMAQ funding
- From tier 0 to tier 3 diesel
- Several projects caught in the 2017 Buy America Waiver delays

CMAQ Program Eligible Counties & Townships



OHIO DIESEL EMISSIONS REDUCTION GRANT PROGRAM

Projected Annual Emission Reductions (7 vessels)



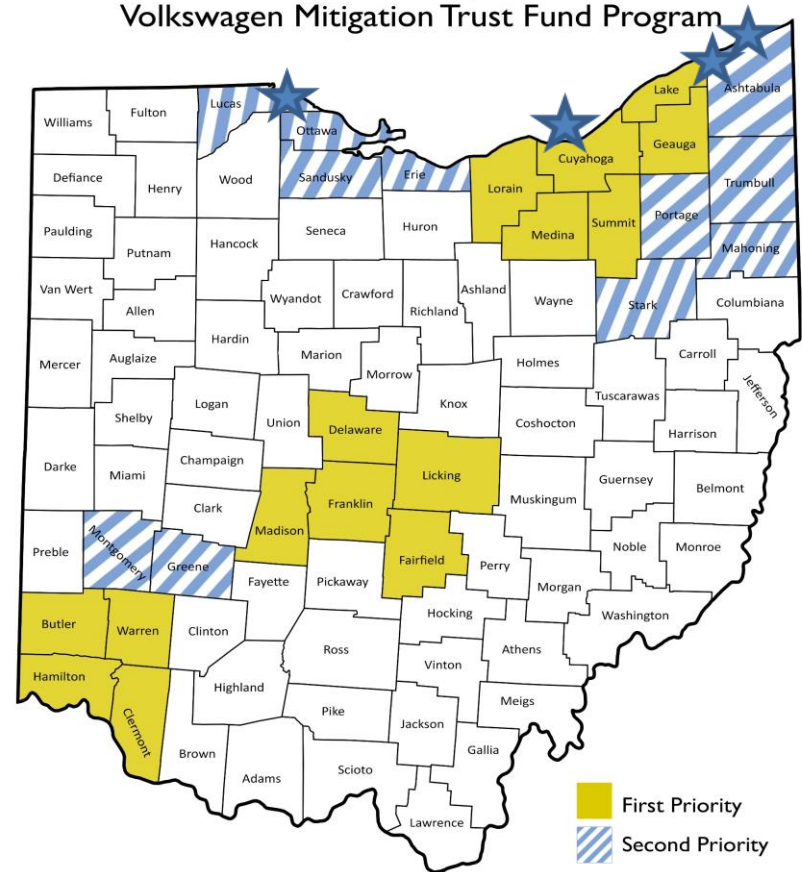
- 307.14 tons NOx
- 13.17 tons PM 2.5

Lake Erie Tugboats



- Replace eight tier 0 tugs from 1897-1931 with four new diesel electric hybrids
- \$2.2 million to pay 40% of engine components
- \$804,000 DERA State Clean Diesel plus \$1,400,000 VW
- Matched with \$3.3 million from Great Lakes Towing for 60% of engine components
- All built in Cleveland shipyard

Possible Ohio Priority Counties for Volkswagen Mitigation Trust Fund Program



Reducing Emissions in Lake Erie Ports



- Going from this....





To this:

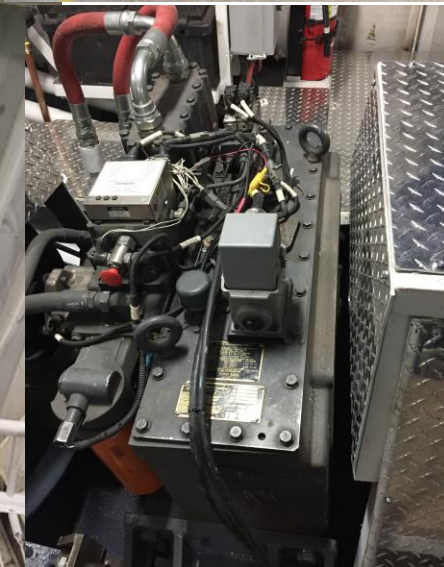


Project Update

- The new *Ohio* launched in December 2018 for sea trials and will be christened 6/21/19.
- The new *Michigan* will launch in a few weeks and be christened 7/22/19 in Cleveland.
- The new *Pennsylvania* is under construction, and work will begin soon on the fourth.
- Ohio EPA observed decommissioning of several of the old tugs in February.







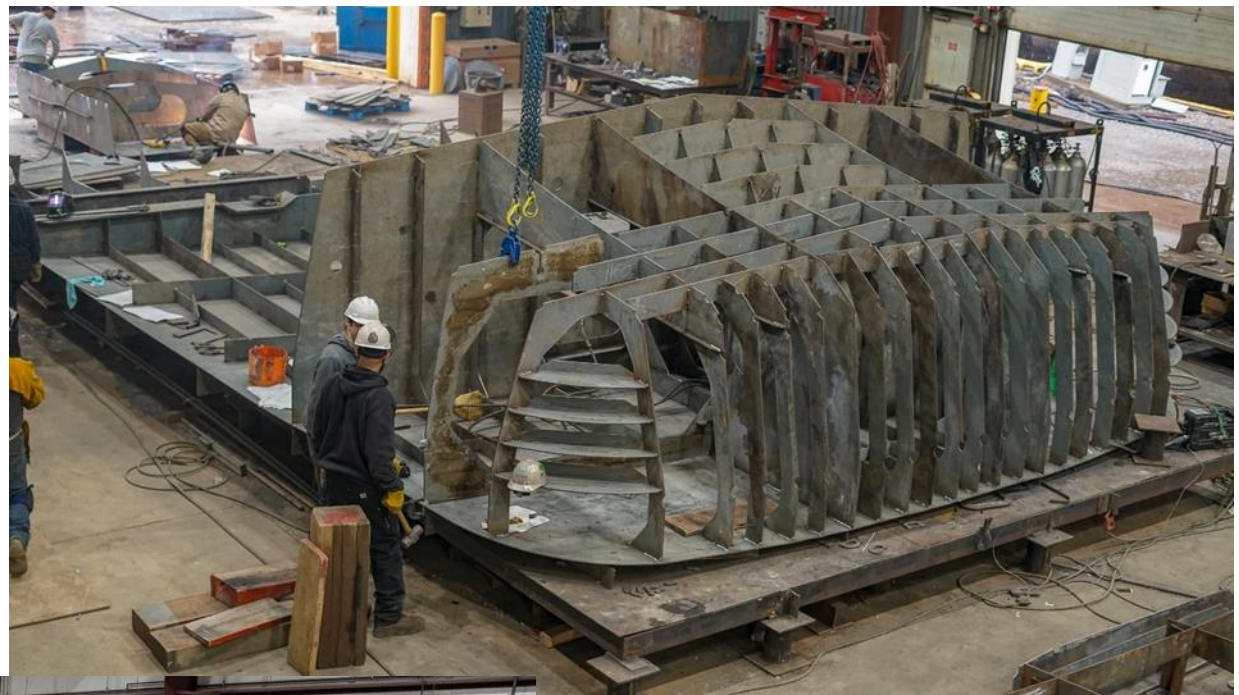
Hull 6503 (tug MICHIGAN) bow module (foreground) stern and house modules (background) in assembly hall. Engines in place and installing propulsion system.



Hull 6503 (tug MICHIGAN) modules being assembled.



Hull 6504
Pennsylvania
stern module
being framed
and welded



Decommissioning Tug *California* February 2019



Alternative Disposition: Recycling Tug Boats

- The oldest tug, *Ohio*, is now docked and will open as an exhibit at the National Museum of the Great Lakes in Toledo, 6/21/19. Another will be donated for exhibit at a museum in Michigan.



Projected Annual Emission Reductions Lake Erie Tug Boat Replacements

- 32.767 tons NOx
- 0.516 tons PM2.5
- 0.294 tons HC
- 5.910 tons CO
- 353.700 tons CO2



393.187 total tons annual emission reductions

Ohio's VW plan includes \$10 Million for Ground Support and Cargo Handling Equipment in Ports and Airports (only GSE proposals so far)



Shorepower

- Ohio EPA reached out to our major ports on Lake Erie when we were drafting Ohio's VW Mitigation Plan. One port was interested but because of the location of rail infrastructure, the cost would have been prohibitive even with grant funding.

Contact Information

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